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(12) United States Patent

Danestad et al.

(54) VACUUM CLEANERS AND METHODS OF CONTROLLING A MOTOR DRIVEN BY A BATTERY SOURCE IN A VACUUM CLEANER

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(57) ABSTRACT

Vacuum cleaners and methods of controlling a motor driven by a battery source in a vacuum cleaner. The vacuum cleaner has a motor, a battery source for providing power to the motor, a voltage measuring unit for measuring a voltage over the motor, and a current measuring unit for measuring a current flowing through the motor. Further, the vacuum cleaner comprises a control unit for controlling, based on the measured voltage and/or the measured current, the power provided to the motor from the battery source to attain a target motor power value during a specified time period running from start-up of the motor, and to gradually decrease the power provided to the motor after the time period ends.

16 Claims, 3 Drawing Sheets

